CLAIMS

1. A method of increasing viscosity of a pharmaceutical formulation for oral or topical administration comprises the steps of combining:

a) an effective amount of one or more hydrophobic active ingredients;

b) 5 to 50% of one or more compounds selected from polyglycerol esters of fatty acids of formula (1)

$$CH_2OR\text{-}CHOR\text{-}CH_2O\text{-}[CH_2CHOR\text{-}CH_2O\text{-}]_NCH_2\text{-}CHOR\text{-}CH_2OR \quad (1)$$

wherein n is an integer from 4 to 13 and R is H or CO.R' wherein R' is $C_{8\text{-}22}$ saturated, unsaturated or hydroxylated alkyl and wherein at least one group R is not hydrogen;

c) 5 to 50% of one or more compounds selected from polyglycerol esters of fatty acids and/or unsaturated fatty acids of formula (2)

$$CH_2OR\text{-}CHOR\text{-}CH_2O\text{-}[CH_2CHOR\text{-}CH_2O]_NCH_2\text{-}CHOR\text{-}CH_2OR \quad (2)$$

wherein n is an integer from 0 - 10 and R = H or CO.R" wherein R" is $C_{8\text{-}22}$ saturated, unsaturated or hydroxylated alkyl, and wherein while at least one group R is not hydrogen;

d) 5 to 50% of one or more compounds selected from triglyceride macrogol glycerol esters, partial glycerides or fatty acids or macrogol esters of fatty acids in which the average quantity of reacted ethylene oxide in the synthesis of these substances ranges between 50 to 150 mols and concurrently the ratio between components b) and d) is from 0.1 : 1 to 10 : 1;

wherein the above percentages are selected to total 100%;

and wherein upon dilution with water 1:1 by volume the viscosity of the formulation increases by at least 5 times in comparison to the undiluted composition.

2. A pharmaceutical formulation for oral or topical administration including

a) an effective amount of one or more hydrophobic active ingredients;

b) 5 to 50% of one or more compounds selected from polyglycerol esters of fatty acids of formula (1)

$CH_2OR\text{-}CHOR\text{-}CH_2O\text{-}[CH_2CHOR\text{-}CH_2O\text{-}]_NCH_2\text{-}CHOR\text{-}CH_2OR$ (1)

wherein n is an integer from 4 to 13 and R is H or CO.R' wherein R' is $C_{6\text{-}22}$ saturated, unsaturated or hydroxylated alkyl and wherein at least one group R is not hydrogen;

c) 5 to 50% of one or more compounds selected from polyglycerol esters of fatty acids and/or unsaturated fatty acids of formula (2)

$CH_2OR\text{-}CHOR\text{-}CH_2O\text{-}[CH_2CHOR\text{-}CH_2O]_NCH_2\text{-}CHOR\text{-}CH_2OR$ (2)

wherein n is an integer from 0 - 10 and R = H or CO.R" wherein R" is $C_{8\text{-}22}$ saturated, unsaturated or hydroxylated alkyl, and wherein while at least one group R is not hydrogen;

d) 5 to 50% of one or more compounds selected from triglyceride macrogol glycerol esters, partial glycerides or fatty acids or macrogol esters of fatty acids in which the average quantity of reacted ethylene oxide in the synthesis of these substances ranges between 50 to 150 mols and concurrently the ratio between components b) and d) is from 0.1 : 1 to 10 : 1;

wherein the above percentages are selected to total 100%;

and wherein upon dilution with water 1:1 by volume the viscosity of the formulation increases by at least 5 times in comparison to the undiluted composition.

3. A pharmaceutical formulation for oral or topical administration including

a) 0.1 to 30.0 % of one or more hydrophobic active ingredients;

b) 0.1 to 60.0 % of one or more gelators comprising fatty acid esters of polyglycerol;

c) 0.1 to 60.0 % of one or more gel-creating substances selected from esters of polyglycerol with fatty acids and/or unsaturated fatty alcohols;

d) 1.0 to 60 % of one or more co-gelator substances selected from: macrogolglycerol esters of fatty acids, macrogolglycerol esters of vegetable oils, macrogolesters of fatty acids, mono- and di- macrogolcsters of mono-, di- and tri-acylglycerols.

e) 5.0 to 30 % of one or more C_2 to C_4 alcohols;

wherein the above percentages are selected to total 100%;

and wherein upon dilution with water the formulation forms a dispersion of polymorphous gel particles having a dimension of 0.2 to 500 μm.

4. A method or pharmaceutical formulation as claimed in claim 3, wherein the ratio of a : c and/or a : e is in the range 0.001 : 1 to 10 : 1

5. A formulation as claimed in claim 3, wherein component b) is selected from polyglycerol esters of fatty acids of formula (1)

$$CH_2OR\text{-}CHOR\text{-}CH_2O\text{-}[CH_2CHOR\text{-}CH_2O\text{-}]_NCH_2\text{-}CHOR\text{-}CH_2OR \qquad (1)$$

wherein n is an integer from 4 to 13 and R is H or CO.R' wherein R' is $C_{8\text{-}22}$ saturated, unsaturated or hydroxylated alkyl and wherein at least one group R is not hydrogen.

6. A method as claimed in claim 1, wherein R' is $C_{16\text{-}18}$ saturated or unsaturated aklyl.

7. A formulation as claimed in claim 5, wherein R' is $C_{16\text{-}18}$ saturated or unsaturated alkyl.

8. A method as claimed in claim 6, wherein R is selected from the group consisting of oleate, linoleate stearate, linolate, myristate, laurate and mixtures thereof.

9. A formulation as claimed in claim 7, wherein R is selected from the group consisting of oleates, linoleate stearate, linolate, myristate, laurate and mixtures thereof.

10. A method as claimed in claim 8, wherein component b) is selected from: polyglyceryl-10-esters of fatty acids.

11. A formulation as claimed in claim 3, wherein component b) is selected from: polyglyceryl-10-esters of fatty acids.

12. A formulation as claimed in claim 3, wherein component c) is selected from polyglycerol esters of fatty acids and/or unsaturated fatty acids of formula (2).

$$CH_2OR\text{-}CHOR\text{-}CH_2O\text{-}[CH_2CHOR\text{-}CH_2O]_NCH_2\text{-}CHOR\text{-}CH_2OR \quad (2)$$

wherein n is an integer from 0 - 10 and R = H or CO.R" wherein R" is C_{8-22} saturated, unsaturated or hydroxylated alkyl, and wherein while at least one group R is not hydrogen.

13. A method as claimed in claim 1, wherein R" is C_{16-18} saturated or unsaturated alkyl.

14. A formulation as claimed in claim 12, wherein R" is C_{16-18} saturated or unsaturated alkyl.

15. A method as claimed in claim 13, wherein R is selected from the group consisting of oleate, linoleate, stearate, isostearate, linolate, myristate, laurate and mixtures thereof.

16. A formulation as claimed in claim 14, wherein R is selected from the group consisting of oleate, linoleate, stearate, isostearate, linolate, myristate, laurate and mixtures thereof.

17. A method as claimed in claim 1, wherein component c) is selected from: polyglyceryl-3-esters of oleic acid.

18. A formulation as claimed in any of claim 12, wherein component c) is selected from: polyglyceryl-3-esters of oleic acid.

19. A formulation as claimed in claim 3, wherein component d) is selected from triglyceride macrogol glycerol esters, partial glycerides or fatty acids or macrogol esters of fatty acids in which the average quantity of reacted ethylene oxide in the synthesis of these

substances ranges between 50 to 150 mols and concurrently the ratio between components b) and d) is from 0.1 : 1 to 10 : 1.

20. A method as claimed in claim 1, wherein component d) is is macrogol glycol halogenated castor oil.

21. A formulation as claimed in claim 3, wherein component d) is macrogol glycerol halogenated castor oil.

22. A method as claimed in claim 1, wherein component b) is selected from: polyglyceryl-10-esters of oleic acid; component c) is selected from polyglyceryl-3-esters of oleic acid; and component d) is macrogol (1760) glycerol hydrogenated castor oil.

23. A formulation as claimed in claim 3, wherein component b) is selected from: polyglyceryl-10-esters of oleic acid; component c) is selected from polyglyceryl-3-esters of oleic acid; and component d) is macrogol (1760) glycerol hydrogenated castor oil.

24. A method as claimed in claim 1, wherein the component a) is selected from cyclosporins especially cyclosporin A, cyclosporin D or cyclosporin G, wherein the ratio of components a : c + e is 1.001 : 1 to 1.5 : 1.

Sub B2

25. A formulation as claimed in claim 2, wherein component a) is selected from cyclosporins especially cyclosporin A, cyclosporin D or cyclosporin G, wherein the ratio of components a : c + e is 1.001 : 1 to 1.5 : 1.

26. A method as claimed in claim 1, wherein component a) is selected from taxanes, especially docataxel or paclitaxel, wherein the ratio between components a : c + e is 0.001 : 1 to 1.5 : 1.

Sub B3

27. A formulation as claimed in claim 2, wherein component a) is selected from taxanes, especially docataxel or paclitaxel, wherein the ratio between components a : c + e is 0.001 : 1 to 1.5 : 1.

28. A method as claimed in claim 1, wherein component a) includes at least one substance selected from the group comprising cyclosporins and at least one substance selected from the group comprising taxanes.

29. A formulation as claimed in claim 2, wherein component a) includes at least one substance selected from the group comprising cyclosporins and at least one substance selected from the group comprising taxanes.

30. A formulation as claimed in any claim 2, further including excipients to modify the physical, chemical, microbial stability, organoleptic or physical processing properties of the formulation.

31. A pharmaceutical dosage form comprising a gelatin capsule containing a formulation as claimed in any of claims 2.

32. A pharmaceutical dosage form comprising a gelatin capsule containing a formulation as claimed in claim 3.